

## CHAPTER XI

### **STREETS, STREET SPECIFICATIONS, AND GENERAL SUBDIVISION LAYOUT**

Preliminary and final plats for subdivisions shall be prepared by a professional engineer who is currently licensed in the State of Arkansas. All subdivisions, land developments, and mobile home parks shall be designed in such fashion as to allow a contiguous system of improved hard surface roadways conforming to the minimum standards of development set forth in this ordinance. Gravel roads, to the extent allowed, shall be constructed to existing county standards which shall be specified from time to time by the Benton County Road Department.

#### **SECTION 1 – STREET AND DRAINAGE PLAN**

The street plan should show all existing and proposed improvements. The plan should show the water courses, drainage outlets, and methods of disposal. A centerline profile of the proposed roadways shall be drawn from field notes and the proposed final grade profile shall be added showing the grades and vertical curves. A typical cross-section of each type of proposed street on the plat showing ditch section, side sloping, shoulder paving, curb and gutter (if applicable) with dimensions. Grades of existing streets at the intersection of subdivision streets shall be shown for a minimum distance of 200 feet. The drainage area, in acres above each proposed drainage structure, shall be shown on the final plat or submitted by a separate drawing to the final plat. The engineer shall prepare calculations certifying that the drainage exiting the subdivision shall not exceed a certain specified flow. The engineer preparing such subdivision plat shall be responsible for the accuracy and completeness of all drainage calculations.

#### **SECTION 2 – STREETS**

The arrangement, character extent, width, and general location of all subdivision streets shall conform to these regulations. The relationship to existing and planned streets, terrain conditions, public convenience and safety, and the proposed uses of the land area to be served shall be considered in determining suitability. There are two classes of subdivision streets, primary and secondary, to service different population densities. (See “Minimum, Design Standards for Subdivision Streets” enclosed in this regulation).

**County Jurisdiction of Road Construction Outside Subdivisions:** Any road or street outside or adjacent to a subdivision shall comply with the Benton County Road Plan. In addition, on existing roads which are adjacent to a proposed subdivision, additional right-of-way may be required.

**Grades:** Street grade for subdivision streets should not exceed ten percent (10%). However, grades up to fifteen percent (15%) may be approved for distances up to three hundred feet and concrete surfacing with curb and gutter and/or paved ditches may be required in such cases. A vertical curve of a radius to assure adequate forward visibility and designed for a minimum speed of 25 mph shall be used to connect stretches having different grades. On the approaches to intersections, there shall be a leveling off of the street at a grade generally not exceeding five percent (5%) for a distance of generally not less than fifty (50) feet from the nearest lane of the crossing street. The grade within the intersection should be as level as possible, consistent with drainage requirements.

**Alignments:** Street alignment should discourage sharp curves and the resulting traffic hazards, and permit proper intersection of streets. Paralleled streets (except frontage streets) with less than 126 feet between center lines shall be avoided.

**Intersections:** Streets shall be designed to intersect as nearly as possible at right angles provided that no street shall intersect any other at less than seventy degrees. Pavement of streets shall have a minimum corner radius of twenty-five feet at the outside of the pavement or curb line. All corner radii shall be on the street plans. There shall be at least a 125 foot centerline offset between streets which do not intersect opposite one another.

**Separation Features and Limited Access:** Where a subdivision abuts or includes a U.S. or State highway or primary subdivision street, a pre-platting conference (see Chapter III) is required in order to determine the use of a frontage street or limited access.

A. A frontage street is located parallel and adjacent to highways or primary subdivision streets to provide separation and access to the adjoining properties and to minimize intersections.

B. Recommended limited access includes but is not limited to:

1. Platting the lots abutting such trafficways at very generous depths; and by providing vehicular access to them by means of either alleys or service drives in the rear or frontage access roads next to the highway connecting therewith at infrequent intervals.

2. Fronting on a secondary street paralleling the highway at a distance of a generous lot depth with limits of no access identified on the plat for those lots which border the highway.

**Dead-End or Stub Street:** Temporary dead-end or stub streets designed to provide future connections with adjoining undeveloped areas shall provide a temporary turn-around easement and shall be designed to prevent excessive accumulation of run-off water at the dead-end.

**Cul-De-Sac:** Cul-de-sacs should not exceed six hundred feet in length measured from the entrance to the center of the turn-around, and shall be provided with a turn-around having a radius of not less than thirty (30) feet at the pavement center line and not less than fifty (50) feet at the property line. Exceptions may be granted due to topographical features.

**Private Driveway or Street:** Every lot within a platted county subdivision shall be served by a hard surface road having sufficient dedicated right-of-way. Private driveways or streets need not

comply with county improvement standards for public streets, but will not be dedicated to the county nor maintained thereby. Private driveway or streets shall not be utilized for public traffic.

### **SECTION 3 – LOTS**

**Access:** Every lot shall abut or be contiguous to a public road or street, right-of-way, easement, or other method of particular access. In a planned unit development, private easements or other non-public access may be substituted.

**Size:** Where not otherwise determined by local regulations or the regulations of the health department for individual septic systems of sewage disposal, the minimum lot size for residential use which shall be susceptible to approval shall 10,000 square feet with a minimum lot width of 60 feet.

**Shape and Depth:** The size, shape, and orientation of lots shall be appropriate for the location of the subdivision, and for the type of development. Excessive depth in relations to width should be avoided. Where practicable, side lot lines shall be approximately at right angles to the right-of-way line of the street on which the lot faces.

**Double Frontage:** Backing or double frontage lots should be avoided.

### **SECTION 4 – SURVEY MONUMENTS**

Monumentation for the boundary corners of the subdivision shall be concrete monuments or monuments set in concrete. The concrete monuments shall be four (4) inches in diameter for the round type and four (4) by four (4) inches for the square type. The length shall be at least twenty-four (24) inches and when set, allow the top to be three (3) inches above the ground. Iron rod type monuments shall be at least one-half (1/2) inch in diameter, at least sixteen (16) inches long, and visible above the ground when set. Monuments shall be set at all corner points and angle points and care should be taken to reference any monuments that are in places where they are likely to be disturbed or lost themselves. Point identification shall be placed at all lot corners. “T” stubbed metal fence posts should be driven beside the concrete monuments for protection and recovery for future use.

### **SECTION 5 – BUILDING LINES AND YARD DIMENSIONS**

The following minimum building lines shall be used in all residential subdivisions. A front building line shall be located at least 25 feet back from the right-of-way. The lot width at this building line shall be not less than 60 feet. The minimum yard dimensions free from accessory structures shall be: side yard, 10 feet; front yard, 25 feet; back yard, 25 feet; and street-side yard on a corner lot, 25 feet each.

### **SECTION 6 – EASEMENTS**

Easements of adequate width according to engineering or open space standards shall be provided for public use and utilities. Such easements shall have a minimum combined width of

at least fifteen (15) feet along the front, side, and rear lot lines.

## **SECTION 7 – CITY CONNECTIONS**

In all cases where the water supply or sewer disposal system will be connected to lines or mains owned or operated by a city, town, or special district, construction of said facilities shall be made according to the plans, requirements, and specifications and subject to the supervision or inspection and approval of the governing body, qualified employee, or County Sanitarian. Approval of the plans for any such water or sewer system by the above shall satisfy these regulations.

## **SECTION 8 – WATER SYSTEMS**

Where a water system is proposed for the subdivision, a plan view of the proposed water distribution system, showing pipe sizes and the location of valves and fire hydrants shall be shown.

## **SECTION 9 – SEWER SYSTEMS**

Where a sanitary sewer system is proposed for the subdivision, the plans and profiles for such sewers with grades and sizes, manholes, and outlets shall be shown. Other methods of sewage disposal should be indicated and detailed if required.

## MINIMUM DESIGN STANDARDS FOR SUBDIVISION STREETS

| Design Feature               | 301-500 L.U.<br>Primary Street |                                  | 0-300 L.U.<br>Secondary Street or Alley |                                  |
|------------------------------|--------------------------------|----------------------------------|---|----------------------------------|
|                              | Medium<br>Density              | Low Density                      | Medium<br>Density                       | Low Density                      |
| Right-of-Way                 | 80'                            | 80'                              | 50'                                     | 50'                              |
|                              |                                | 60'                              |   | 40'                              |
| Alley                        |                                |                                  |   | 20'                              |
| Pavement Width               | 22'                            | 22'                              | 20'                                     | 18'                              |
| Lane Width                   | 11'                            | 11'                              | 10'                                     | 9'                               |
| Median Width (minimum)       | -                              | -                                | -                                       | -                                |
| Shoulder Width (each side)   | -                              | 6'                               | 6'                                      | 4'                               |
| Ditch Section Width          | -                              | Variable                         | -                                       | Variable                         |
| Curb & Gutter                | Yes                            | -                                | Yes                                     | -                                |
| Number of Lanes              | 2                              | 2                                | 2                                       | 2                                |
| Maximum Grade %              | 10*                            | 10*                              | 10*                                     | 10*                              |
| Minimum Grade %              | .5                             | .5                               | .5                                      | .5                               |
| Design Speed (mph)           | 30-40                          | 30-40                            | 25-35                                   | 25-35                            |
| Back of Curb to Back of Curb | 26'                            | -                                | 24'                                     | -                                |
| Surface Type                 | C.C. or A.C.                   | C.C. or A.C.                     | D.C.S.                                  | D.C.S.                           |
| Crown (minimum)              | 6"                             | 6"                               | 5"                                      | 4"                               |
| Shoulder Type                | -                              | Improved gravel or crushed stone | -                                       | Improved gravel or crushed stone |

\*15% grade may be allowed for distance up to 300' with possible C.C. surfacing and curbs and gutters.

L.U. – Living Units

A.C. – Asphaltic Concrete

C.C. – Cement Concrete

D.C.S. – Double Chip and Seal

Low Density – 2 L.U. per acre or less

Medium Density – 3 L.U. per acre or less

Note: The type of street surface shall be determined by the County Judge. Street construction specifications shall be in accordance with the County Road Plan.